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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/526,903 | 03/07/2005 | Koji Sahashi | 1761.1073 | 7847 |
| 21171 | 7590 | 07/25/2007 | | |
| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | EXAMINER EDWARDS JR, TIMOTHY | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2612 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,903

Applicant(s)

SAHASHI ET AL.

Examiner

Timothy Edwards, Jr.

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-31 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9,12-18,28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Szabo et al '993.

Considering claim 1, Szabo discloses wirelessly transmitting a signal from a rotation part to a stationary part of a machine or vehicle comprising a) a plurality of sensors (see col 3, lines 4-8); b) a sensor signal transmitter (see col 3, lines 57-63 and fig 1, item 4); c) an electric power receiver for receiving an operating power signal wirelessly (see col 2, line 66 to col 3, line 3 and fig 1, item L2); d) electric power transmitter (see fig 1, items 7 and L3).

Considering claim 2, Szabo discloses the limitation of this claim (see col 2, lines 60-64 and fig 1, item 1).

Considering claim 3, Szabo discloses the limitation of this claim (see col 2, lines 60-64 and fig 1, item 1).

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Considering claim 4, Szabo discloses the limitation of this claim (see col 2, lines 60-64 and fig 1, item 3).

Considering claim 5, the limitations of this claim are interpreted and rejected as stated in claims 3 and 4)

Considering claim 6, Szabo discloses the limitation of this claim (see col 3, lines 27-30).

Considering claim 7, Szabo discloses the limitation of this claim (see col 3, lines 4-8).

Considering claim 8, Szabo discloses the limitations of this claim (see col 3, lines 34-47, col 4, lines 12-18, fig 1, item 1 and fig 2).

Considering claim 9, Szabo discloses the limitation of this claim (see col 3, lines 29-33).

Considering claim 12, Szabo discloses the limitation of this claim (see col 3, lines 34-36). Examiner interprets the plane of polarization to function the same as the use of the different frequencies to transmit data and receive power.

Considering claim 13, Szabo discloses the limitation of this claim (see col 3, lines 41-47). Interpretation of the plane of polarization is the same as above in claim 12.

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Considering claim 14, Szabo discloses the limitation of this claim (see col 3, lines 4-8 and lines 27-30).

Considering claim 15, Szabo discloses the limitation of this claim (see col 2, lines 60-64).

Considering claims 16,18 the limitations of these claims are interpreted and rejected as stated in claim 1.

Considering claim 17, Szabo discloses the limitation of this claim (see col 2, lines 60-64, col 3, lines 27-30 and fig 1, item 4 and L2).

Considering claim 28, the limitations of this claim are interpreted and rejected as stated in claim 1. Except the limitations of the structure of the wheel bearing assembly. These structural components are inherent and well known in the art.

Considering claim 29, the limitations of this claim are interpreted and rejected as stated in claim 28.

Considering claims 30,31 Szabo discloses the limitations of these claims (see col 6, lines 2-20 and figs 9 and 10).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo '993.

Considering claims 19-21, Szabo does not specifically recite a rotational sensor including a multi-polar magnet. Szabo discloses the use of a plurality of sensing devices associated with a bearing assembly (see col 2, lines 60-63 and fig 1, item 3). One of ordinary skill in the art would readily recognize the use of any type of rotational sensor is within the scope of the Szabo system because Szabo is concern with the sensing of rotational devices and Szabo discloses the use of a plurality of sensing devices associated with a bearing assembly. Applicant admits (page 2, 2nd paragraph) the use of multi-polar device to detect rotation of a device is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art to use a known rotational type of rotational device in the Szabo system because Szabo is concern with the use of a plurality of sensing devices associated with a bearing assembly.

Considering claims 22-24, Szabo does not specifically recite a magnetic sensor is a magneto resistive sensor. Obviousness is as stated in claims 19-21.

Considering claims 25-27, Szabo does not specifically recite the location of his sensor relevant to bearing of the device. Szabo discloses the placement of his devices such that they would not be susceptible to dirt and icing. Arranging the devices such that they would not be susceptible to dirt and icing suggest sealing the devices in a sealed compartment or container. One of ordinary skill in the art readily recognizes the sensor must be place near or within a the device to be sensed in order to obtain the measurement. Therefore, it would have been obvious to one of ordinary skill in the art this limitation is within the scope of the Szabo system because Szabo discloses a sensors located on a vehicle wheel and transmitting with respect to the wheel.

Allowable Subject Matter

5. Claims 10, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bock et al '034, Nigon et al '132, Corgan et al '579 and Kulha '559 disclose wheel sensing system power by wireless radio frequency signal.

Any inquiry concerning this communication should be directed to Examiner Timothy Edwards, Jr. at telephone number (571) 272-3067. The examiner can normally

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be reached on Monday-Thursday, 8:00 a.m.-6:00 p.m. The examiner cannot be reached on Fridays.

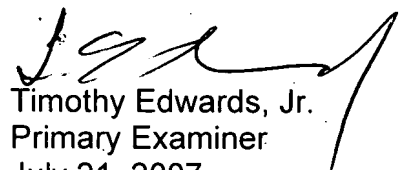
If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman, can be reached at (571) 272-3059.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-4700, Mon-Fri., 8:30 a.m.-5:00 p.m.

Any response to this action should be fax to:

(571) 273-8300 (for formal communications intended for entry).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov> or contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Timothy Edwards, Jr.
Primary Examiner
July 21, 2007